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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,323	11/20/2003	Troy M. Herndon	1229.005	3071

7590 09/28/2005

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EXAMINER

EVANS, JEFFERSON A

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/719,323	Applicant(s) HERNDON ET AL.	
	Examiner Jefferson A. Evans	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

By

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Claims 1 to 23 are pending.

Claim Rejections - 35 USC § 112

1. Claims 4, 5, 11, 12, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A...claim 4 – line 1, “journal bearings” (plural) lacks proper antecedent basis as only a single journal gap has been established. This issue is also in claims 11 and 19.

B...claim 4 is indefinite as it attempts to define the structure of actually claimed structure, i.e., the journal pattern formed by the symmetric grooved pattern, by comparing the actually claimed structure to an inadequately defined second structure which is not actually what is being claimed, i.e., the journal having an asymmetric grooved pattern bearing. The limitation “an axial span increased a length in the range of 10% to 20% as compared to...” has no meaning when the structure it is compared to is an arbitrary part of an unclaimed structure that has no defined definitions. A similar issue exist for claims 5, 11, 12, 19, and 20.

Claims 8, 15, and 23, if element 226 is the element of the present invention which corresponds to the claimed second thrust surface, it is not seen how it can be considered “between” the rotatable component and the stationary component since it appears to lie entirely below the shaft, i.e., the rotatable component.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-16, and 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Zang (U.S. 5,839,833). Note figure 2. Zang discloses a spindle motor, for incorporation into a disk drive, comprising: a rotatable component 94,95 defining a journal gap 38 and relatively rotatable with a stationary component 14; a recirculation path 39 through one of the stationary component and the rotatable component for recirculating fluid through the journal gap; and a first thrust surface 42 with pumping grooves extending substantially radially, formed on one of the stationary component and the rotatable component, and formed between the recirculation path and the journal gap 36. The journal bearing has two symmetrical grooves 73,74. The structure of Zang will inherently perform to some degree the function set forth in claim 6. Zang includes a stator 12 for interacting with a magnet (not labeled but shown in figure 2) attached to hub 96). Zang includes a second thrust surface, the upper surface of plate 83.

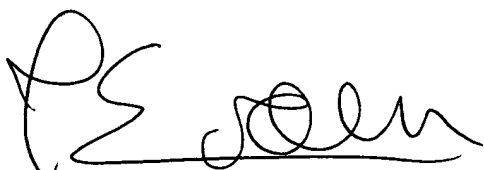
4. Claims 1, 2, 6-9, 13-17, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Leuthold et al (U.S. 5,524,986). Leuthold discloses a rotatable component 52, a journal gap 90; a recirculation path 102 formed in the rotatable component; and a first thrust surface 122 with herringbone grooves between the recirculation path and the journal gap. Figure 3 shows an asymmetric groove at a top right corner of journal gap 90. The structure of Leuthold will inherently perform to some degree the function set forth in claim 6.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson A. Evans whose telephone number is 571-272-7574. The examiner can normally be reached on Monday to Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'JAE', followed by a stylized signature.

JAE

September 24, 2005

Jefferson A. Evans
Primary Examiner
Art Unit 2652

**JEFFERSON EVANS
PRIMARY EXAMINER**